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UNITED STATES DEPARTMENT OF AGRICULTURE  
Bureau of Agricultural Engineering

MONTHLY NEWS LETTER

Vol. 6.

January 25, 1937

No. 5

MORRIS COTGRAVE BETTS

Morris C. Betts, Chief of the Division of Plans and Service from July 1931 to February 1936, died on December 22 after an illness of about 12 months. Mr. Betts entered Government service in July 1914, in the Bureau of Plant Industry, and a year later was transferred to the Office of Public Roads and Rural Engineering. He studied architecture at the University of Pennsylvania, was engaged in general architectural work from 1898 to 1908, and from then to 1914 was architectural editor of the Ladies' Home Journal. During the World War he was detailed for service with the War Industries Board. Under his direction were prepared popular publications dealing with farm-buildings problems, and designs of laboratory and service buildings at many field stations, including Arlington, Va., Beltsville, Md., Government Island, Calif., Portland, Oreg., Vancouver, Wash., and Ogden, Utah. Mr. Betts was a member of the Society of Friends and of the American Society of Agricultural Engineers.



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(Confidential information, for Bureau staff only  
Not released for publication)

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: Copies of the new Regulations of the Department of Agriculture, :  
: effective July 1, 1936, have been furnished to all field offices. :  
: From time to time it is necessary to amend these Regulations, which :  
: will be sent by the Washington Office to all field offices having a :  
: copy of the Regulations. It is very important that when new amend- :  
: ments are received they be placed in the book of Regulations im- :  
: mediately. The amendments will be accompanied by a small memo- :  
: randum form on pink paper, on which will be indicated the number of :  
: sheets attached. It is the responsibility of the person in charge :  
: of each field office to see that amendments are properly filed and :  
: that the Regulations are kept up to date. :  
: .....

: The following is a synopsis of a recent decision of the :  
: General Accounting Office: :

: "Government officers and employees traveling on a per diem :  
: in lieu of subsistence basis are not required to make deduction for :  
: meals or lodging furnished without charge unless furnished by a :  
: Government agency, and that portion of the jurat on the travel form :  
: to the effect that no meals or lodging were furnished by a member of :  
: his family or by another Government employee or such employee's :  
: family, may be deleted in such cases where inconsistent with the :  
: facts." :

: Attention is called to the fact that authors of Department :  
: publications are no longer allotted a supply at the time of issue. :  
: This does not prohibit authors from sending copies personally to :  
: individuals with whom they have had direct relations, and upon :  
: request a reasonable supply for this purpose will be furnished. :  
: Government publications should not be marked "With author's :  
: compliments" or similar notation. :  
: .....



The manuscript for a bulletin on Modernizing Cotton Gins has been submitted for publication by Chas. A. Bennett. Mr. Bennett visited the Washington office recently in connection with this and other matters.

On January 14-16 L. A. Jones visited Toledo, Ohio, for a conference with J. G. Sutton and D. A. Isler relative to the research program for the development of more effective equipment for cleaning out and maintaining small ditches. Arrangements were made for Mr. Isler to carry on machine shop work necessary in connection with the project in the shop of the Division of Farm Mechanical Equipment operated at Toledo under the direction of R.M. Merrill.

At Swanton, Ohio, Mr. Jones inspected the site for a proposed reservoir for a city water supply which the local people have requested the CCC camp at that place to construct.

J. T. Olsen made a survey of the ~~Swanton~~ housing development located near Newport News, Va., for the Federal Housing Administration and prepared detailed plans for drainage and sewage disposal. The plans call for the installation of surface drainage ditches for 20 acres, the installation of 35,000 feet of tile drains, and the construction of 47 septic tanks with distributing systems. He was assisted by J. W. Rockey of the Division of Structures.

The following summary of work accomplishments of the Central District CCC Camps during the months of March to December, inclusive, had been submitted by John G. Sutton.

The heavy reconstruction program was in full operation in the District by the middle of March and the 36 camps excavated a little short of one million cubic yards. Excavation quantities gradually increased to a peak of 2,230,000 cubic yards reached in the month of October. Excavation yardage for December was 1,436,000 yards. The following represents average monthly accomplishments of the 36 drainage camps during the previous nine months period:- Excavation - 1,683,000 cubic yards; Clearing - 6,082,300 sq. yds; Reconditioned tile lines - 45,517 linear feet; structural and other work of various classes - 11,677; and total man-days per month - 86,600. The commercial value has averaged \$466,300 monthly and local drainage enterprises contributed an average of \$108,000 monthly. Deducting cooperation from the commercial value leaves a total of \$358,300 monthly which may be called the net commercial value of Government work accomplished by the staff and enrollees, an average of \$4.14 per enrollee man-day.

At a drainage school held January 7 - 9, inclusive at the University of Kentucky, Lexington, Ky., J. G. Sutton, Clark E. Jacoby and W. H. Tyler of this Bureau, delivered addresses. The school was attended by engineering personnel of the Drainage Camps in the Kentucky area.

Preparation of the report on the Rio Grande Joint Investigation for the National Resources Committee is now in progress. Messrs. Blaney, Ewing, and Rohwer spent practically the entire month of December in the Berkeley office on this work; Fred C. Scobey and O. W. Israelsen also spent a part of the month in Berkeley. Arrangements were made for A. A. Young to assist in summarizing data collected on use of water by native vegetation and on evaporation along the Rio Grande, and Dean W. Bloodgood will prepare a statement on irrigation practice in Mesilla Valley, N. Mex., where he was stationed for several years. Field work involving observations of transpiration, evaporation and precipitation in Rio Grande Valley was completed.



On the irrigation water supply forecasting project, J. C. Marr has had snow sampling sets sent to observers, with detailed instructions for making the observations. Forms for reporting results of snow cover measurements and irrigation water supply forecasts for the Columbia and the Missouri River basins were prepared. Upon request of the State Commissioner of Reclamation for Idaho, Mr. Marr submitted an article on "Irrigation Water-Supply Forecasting" for the Biennial Report of that department. Geo. D. Clyde completed the final report on the snowcourses of the Utah co-operative network. Soil samples and snow cover measurements were taken on some of the Utah courses December 4. A talk on "Irrigation Water Supply Forecasting in Oregon" was given by R. A. Work before the 51st Annual Meeting of the Oregon State Horticultural Society at Hood River, Oregon, Dec. 12.

Harry G. Nickle assisted the Texas Board of Water Engineers in starting a WPA water table survey in the irrigated areas along the Pecos River. Mr. Nickle also assisted in tests of a model weir and screened water wheel in the hydraulic laboratory of the University. Aquatic growths floating in the water are collected on the screened wheel until some head is built up, at which time the wheel turns, releasing the water, and dumps the growth from the lower side of the wheel. Tests indicated satisfactory results with the wheel set at various positions in relation to the weir.

In connection with the evaporation project arrangements were made by A. A. Young to use reservoirs located at Claremont and Covina, in Los Angeles County, and at Fullerton in Orange County, Calif. These were selected for location, type of roof cover, shape of reservoir, and accessibility. Records were begun at two reservoirs on January 1. The equipment consists of a floating Weather Bureau pan and a similar outdoor pan for comparison. Records of rainfall, water temperature in both pan and reservoir, and air temperature above the water surface are part of the record.

R. B. Allyn was appointed Junior Irrigation Engineer, to assist R.A. Work at the Medford, Oregon, experiment station, and began work December 16. One of his first assignments was the preparation of a design for a concrete cut-off wall 75 feet long and 5 feet deep into bedrock. The wall will be poured against an undisturbed wet earth plot in which experiments are to be carried on for determination of the effect of carbon dioxide concentrations on root growth in wet soils.

R. B. Gray, Chairman of the Farm Processing Equipment Committee of the Farm Chemurgic Council, has been invited to attend the meeting of the Governing Board in New York City, January 22. Before returning to Washington he will call on Frank Irons at Moorestown, N.J. where Japanese beetle and corn borer control machinery investigations are under way.

John W. Randolph attended a several days' conference at Phoenix, Ariz. where the S.A.E. tire committee was conducting some preliminary tests with rubber tired tractors. This committee, composed of members of the tractor and rubber tire companies, have asked the assistance of the Auburn laboratory in carrying out fundamental studies on pneumatic tires used on steering, traction and weight carrying members of agricultural tractors and machinery. Mr. Randolph spent January 15 and 16 at Detroit, Mich. in conference with members of the S.A.E. tire committee and others relative to the design of wheel testing equipment.



A new experimental cross-over check-rower is under construction at Ames, Iowa for a six-row, 21-inch corn planter, according to C. K. Shedd. This is similar to the device built on the four-row, 42-inch planter last summer.

The Third Annual Sugar Beet Round Table Conference held at Fort Collins, January 5, 6, and 7, was formally made into the American Society of Sugar Beet Technologists. This conference, in which E. M. Mervine has participated, giving progress reports on sugar beet machinery, was attended by 85 executives of the sugar beet industry from 12 States and Canada.

S.W. McBirney stationed at Davis, Calif., reports that design work on a small planter unit for securing uniform seed spacing of sugar beet seed has been completed and construction of the unit has been begun. This unit uses as a feed a chain of small seed-ball cups designed to drop one seed ball in each inch of row.

The Curtis Publishing Co. recently sent a staff writer to the Bureau to interview W. M. Hurst and W. R. Humphries in connection with an article on small combines which is to appear in a forthcoming issue of Country Gentleman.

On December 29 and 30 W. M. Hurst attended the annual meeting of the American Farm Economic Association in Chicago and read a paper "New Developments in Farm Machinery and Economic Implications."

Two experimental pyrethrum harvesters are being constructed by Geo. R. Stafford and W. M. Hurst, at Arlington Farm in cooperation with the Bureau of Plant Industry. These machines will be tested in Maryland, Pennsylvania, and West Virginia, early next summer.

A. D. Edgar has returned to Maine to take readings on the experimental insulation panels which were installed last year and to confer with the Maine Experiment Station and the Extension Service regarding publication of a bulletin on potato storage, manuscript for which has been completed by Mr. Edgar.

The Maine potato growers seem to be especially interested in better storage this year since storage losses are unusually large while prices are above the average owing to field disease and poor harvesting conditions.

J. R. Dodge is at Madison, Wisconsin to confer with Max J. LaRock regarding the farmhouse improvement studies which he is making. He will also confer with Professor J. B. Davidson and others of the Iowa Agricultural Engineering staff regarding improved types of low-cost farmhouses.

Publications issued: None.

I have been thinking of writing you for some time but have been so busy that I could not find time to do so. I am now at home and have some time to spare. I hope to write you more often in the future.

The first thing I want to tell you is that I am well and hope you are the same. I have been thinking of you very much and wondering how you are getting on. I hope you are happy and healthy.

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Yours truly,  
John Doe